

Systematic Review

Depression and Relationships to the Quality of Life Menopause Women

Siti Kotijah¹, Ah. Yusuf², Sestu Retno DA³

¹ Master Program of Nursing University of Airlangga, Su

² University of Airlangga Surabaya

² STIKES Pemkab Jombang

khodijahsiti1105@gmail.com, ah-yusuf@fkip.unair.ac.id, sestu.retno@yahoo.com

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Abstract: Background: Depression is a psychological change that occurs mostly in menopausal women. there are studies explaining the symptoms of depression that arise when women experience menopause and its relationship to quality of life. The purpose of this research to review evidence of the relationship between menopause and depression, and between depression and quality of life that is one of the main symptoms of menopause. Method: A systematic review was conducted based on literature published between 2002 and 2018. Using medline, science direct, JAMA, Pubmed and PsychINFO databases. The key terms "depression", "menopause", "climacterium", "quality of life", are incorporated into the search. Results: Ten studies reported an association between menopause and depression, eight studies that investigated the association between depression and quality of life. Women with low levels of depression and a positive attitude towards menopause have positive body image values. Conclusion: There are studies that provide solid data on the prevalence of depression that meets the diagnostic criteria, as well as the suitability of the measuring instruments used to assess the quality of life. It takes a good management strategy to reduce the severity of depression so as to improve the quality of life menopausal women.

1 INTRODUCTION

Menopause is a normal process have symptom in a woman's life that is marked by the cessation of the menstrual cycle. During menopause, women recognize various transitional changes in physical and psychological traits. Psychological changes are often felt include anxiety, fear, irritability, irritability, difficulty concentrating, nervousness, feeling of no use, stress and depression (Terauchi et al., 2017). Depression is a cause of health disability in women with a lifetime prevalence of more than 20%. Depression becomes a major contributor to the burden of disease in the future (Mathers and Loncar, 2006). In the National Comorbidity Survey (NCS) in the United States, the prevalence of severe lifelong depressive disorder was 12.7% for men and 21.3% for women (Kessler et al., 1993), and more recent data presented nearly doubled risk of severe depression in women (OR=1.7, CI 95% 1.5-2.0) (Jung et al. 2015).

Several prospective cohort studies have reported an increase in symptoms of depression during the menopausal transition period of two to three fold, but less is known about the trajectory of depressive symptoms during menopausal transition and factors that modify the association between menopausal stage and its symptoms (Hickey et al 2016). More than 80% of women experience physical or psychological symptoms in the year approaching menopause with various stresses and distributions in their lives, which can lead to a decline in quality of life (QOL) (Nisar & Sohoo, 2009). QOL has been defined by the World Health Organization (WHO) as an 'individual' perception of their position in life in the context of the value and cultural system in which they live and in relation to their goals, expectations, standards and concerns. discussed the contribution of nursing research on socio-demographic factors to the relationship between menopausal symptoms and QOL (Binfa et al., 2004; Karaçam & Seker, 2007). Furthermore, most studies were conducted in developed countries with

different socio-cultural realities , which may affect not only QOL perceptions but also experience of menopausal symptoms, because experience during menopause varies among different ethnic groups (Mirhaghjou et al., 2016).

This systematic review provides a critical survey of the literature on the relationship between depression and menopause as well as examining the implications of such research in the future and for clinical intervention. There are two prominent main areas: First, the relationship between depression and menopause and Second, the relationship between depression and the quality of life of menopausal women. This is a theoretical and clinical interest highlighting the mechanisms by which both may be related, and may also inform therapeutic interventions for menopausal symptoms.

2 METHOD

Study published between 2002 and 2018, Using medline, science direct, JAMA, Pubmed and PsychINFO database. The key terms "depression", "symptoms of depression," menopause "," climacterium "," quality of life ", are incorporated into the search. The study included if they reported original research investigating the relationship between depression and quality of life. Articles are also obtained via email warning service publishers and search reference manuals identified as many as one hundred and eighty articles, but most of these are clinical studies of health psychology at menopause. Ten studies reported an association between menopause and depression, eight studies that investigated the association between depression and quality of life. Women with low levels of depression and a positive attitude towards menopause have positive body image values. In this study also measured factors such as the use of hormone therapy, lifestyle, as an important predictor of depression trigger No dot should be included after the section title number.

3 RESULTS

Table 1 reports findings from a prevalence study of depression associated with menopausal events. Ten studies have shown that menopause has a significant relationship to the incidence of depression. Five studies suggest that depression occurring in menopausal women is associated with the somato-

vegetative and urogenital symptoms that accompany the woman (Danny Salazar-Pousada et al., 2017; R. Muharam et al., 2017; M. Terauchi et al., 2017; Hongyan Zang et.al, 2016; Katherine E et al., 2016). Two other studies suggest, the incidence of depression in menopausal women is associated with past life events (Suzanne C. et al, 2016; Katherine E et al, 2016).

The use of instruments for measuring depression has different validations in the same depression cases. Two research findings using the beck depression questionnaire (R. Muharam et al, 2017, Nulufer Erbil, 2017), two research findings using self-rating depression scale (SDS) to establish a diagnosis of depression (Hongyan Zang et al., 2016; Yuko Kai et al, 2016). Four epidemiologic studies related to depression and menopause using the same measuring tool that is Center for Epidemiologic Studies Depression Scale (CESD-10), (Danny Salazar-Pousada et al., 2017; Suzanne C. et al., 2016; Martha Hickey et al., 2016; Katherine E et al., 2016). Two other research findings used the Hospital Anxiety and Depression Scale (HADS) to measure symptoms of depression (M. Terauchi et al, 2017; Suzanne C. et al, 2016). The use of different measuring instruments can affect the outcome of depression levels in menopausal women. Not yet validly validated the use of instruments in the measurement of depression and menopause widely.

A study conducted by community-based Martha Hickey et al (2016) with a sample of as many as (N = 13,715 menopausal women aged 45-50 years) revealed that depressive symptoms followed different trajectories during the menopausal transition. Most women have stable symptoms, but about 9% have increased symptoms and the same proportion (8.5%) of symptoms decreases. Increased depressive symptoms do not depend on vasomotor symptoms but are associated with oophorectomy and initiate or discontinue hormone therapy. This is in contrast to other studies that clearly indicate the effect of depressive events with menopausal women. It should be reviewed also other factors such as values, culture and education that differ from each other can affect the individual experience in receiving stimuli due to menopause.

Health and wellbeing of menopausal women has become a major public health in the world today. More than 80% of women experience physical or psychological symptoms in the year approaching menopause with various pressures and distributions in their lives, which leads to a decline in their quality of life (Mirhaghjou et al., 2016). A total of eight findings show that depression associated with

3.1. The prevalence of depression during the menopausal transition.

No	Authors	Sample	Design	Depressive Measure	Findings	Comments
1	Danny Salazar-Pousada et al (2017)	864 women aged 40 to 65 from various South American countries (Afro-Colombian, n=215), Ecuador (Mestizo, N=202), Peru (Quechua at high altitude, n=231), and Paraguay (Mestizo, n=216).	a cross-sectional multicenter study	the 10-item Center for Epidemiologic Studies Depression Scale (CESD-10)	Median total CESD-10 score for all sites was 7.0, with a 36.0% (n=311) having scores equal to 10 or more (suggestive of depressed mood).	depressed mood (higher CESD-10 total scores) was significantly associated with ethnicity, hot flush severity, hormone therapy use, sedentary lifestyle, postmenopause, perceived unhealthy status, and lower education
2	R. Muharam et al (2017)	The number of participants as many as 133 female subjects aged between 45 and 55 years	Cross-sectional	Depression was measured by Beck Depression Inventory-II (BDI-II)	depression (12.8%). Somato-vegetative symptoms 50.4% and urogenital symptoms 75.9%	There was a significant correlation between depression and somato-vegetative (p = 0.008) as well as urogenital complaints among women undergoing menopausal transition
3	Nulufer Erbil (2017)	109 samples Women who have entered menopause naturally or because Operation	Cross-sectional	Beck Depression Inventory (BDI)	The rate of women who fit the borderline evaluation for depression was 27.5%.	Women with low depressive symptom severity and positive attitudes towards menopause had higher positive body image scores.
4	M. Terauchi et al, (2017)	351 women aged 40–76	cross-sectional	Depressive symptoms were assessed using the Hospital Anxiety and Depression Scale (HADS)	feeling unattractive : depression (adjusted odds ratio (OR) 1.35; 95% confidence interval (CI) 1.24–1.47)	Feelings of unattractiveness are highly prevalent in peri- and post menopausal women. Such feelings are associated with depressed moods, poor memory, and unsatisfactory sexual relationships.
5	Hongyan Zang et.al, (2016)	743 participants with age range 40-60 years	Cross-sectional	Depression status in evaluation using the Self-rating Depression Scale (SDS)	The prevalence of depression was 11.4%. Depression is common in participants with poor sleep (95% CI, 3.61, 10.03) or with vasomotor symptoms (VMS) (OR, 2.03; 95% CI, 1.20, 3.44)	There is a significant relationship between depression, vasomotor symptoms (VMS) and sleep disorders tend to change with menopausal status

No	Authors	Sample	Design	Depressive Measure	Findings	Comments
6	Suzanne C. et al, (2016)	A total of 518 Hong Kong Chinese postmenopausal women aged 50 to 64 years	cohort study	Depressive symptoms assessed with the 20-item CES-D	118.9% had CES-D score > 16 at 5-year (T2)	There is a relationship between life events and depressive symptoms among early Postmenopausal
7	Yuko Kai et al, (2016)	Forty Japanese women, partisipan sebanyak 40 orang aged 40 to 61 years di bagi menjadi kelompok kasus dan kontrol	randomized controlled trial	Depressive symptoms were assessed using the Self-Rating Depression Scale	Over half of the participants were postmenopausal (55.0%) and had depression (62.5%)	the Self-Rating Depression Scale scores significantly decreased in the stretching group compared with that in the control group
8	Martha Hickey et al, (2016)	13,715 women aged 45 to 50 years	cohort study	Depressive symptoms were measured using the Center for Epidemiologic Studies Depression scale (CESD-10)	Latent class analysis indicated four distinct profiles of CESD-10 scores over 15 years: stable low (80.0%), increasing (9.0%), decreasing (8.5%), and stable high (2.5%).	Increasing depressive symptoms were independent of vasomotor symptoms but were associated with oophorectomy and stopping or starting hormone therapy.
9	Osvaldo P et al, (2016)	1,612 women aged 45 to 55 years	Cross-sectional	Depressive symptoms were measured using the depression had Patient Health Questionnaire (PHQ-9) scores of at least 10	Among the women included in the survey, 8.2%, 11.5%, and 13.0% of women in premenopause, MT, and postmenopause had PHQ-9 at least 10	whereas major depression was present in 2.2%, 3.4%, and 3.6% of them. Reproductive status did not affect the prevalence of major depression
10	Katherine E et al, (2016)	438 women aged between 45 and 55 years	prospective study	Depressive symptoms were assessed using the Centre for Epidemiological Studies Depression Scale	Increasing age was associated with a reduction in depressive symptoms $F(1,559)=14.83$, $P<0.001$ and negative mood $F(1,935)=14.97$, $P<0.001$	Women's experience of negative mood and depressive symptoms was highest during the menopausal transition and lowest in the late postmenopause

3.2: The relationship between depression on the quality of life of menopausal women.

No	Authors	Sample	Methodology	Measure	Findings	Comments
1	Mamun Ibn Bashir et al, (2018)	A total of 435 responders aged (≥ 17) years	cross sectional	using a structured questionnaire where is included the information of MENQOL and one of the main outcomes “depression” is measured by beck depression inventory.	mean depression score (29.40 ± 6.42) of menopausal women who have any difficulty in concentrating is higher than mean depression score (20.89 ± 6.64) of menopausal women who have no difficulty in concentrating. Another six factors (osteoporosis, heart-beating, fatigue, pressure, tingling, headaches) of MENQOL-symptoms were significantly correlated with depression and P-values are 0.000, 0.000, 0.000, 0.033, 0.006, and 0.002, respectively. Finally the presence of “difficulty in concentrating” and “fatigue” are strongly associated factors with depression score ($P < 0.001$)	The early postmenopausal women have to face more psychological problems (e.g., depression) compare to others. Among postmenopausal women, there is no significant relation between depression and vasomotor symptom (e.g., hot-flashes) perspective to menopausal female society of Bangladesh
2	Kawsar Ahmed et al, (2016)	150 participants Were age between 50 and 70 years old	cross-sectional study	questionnaires and computer-guided	Results indicated that feeling tired or lacking in energy and dizziness (83%) and depression (82%) have worst impact on QOL among all factors, respectively.	early menopausal women are facing more physiological problems than the late menopausal women on their QOL
3	B. Ceylan and N. Özerdoğan (2014)	1030 women, aged 40–59 years.	cross-sectional	using the Menopause-Specific Quality of Life (MENQOL) questionnaire and a questionnaire developed and drawn up in line with the literature	Significant differences were found between the subdomain mean scores on the MENQOL according to menopausal periods ($p \leq 0.000$). Significant differences were detected in all subdomain mean scores of the MENQOL questionnaire according to age groups, perception of income, education, parity and body mass index ($p \leq 0.05$)	In women in the climacteric period, the time that quality of life is the most affected among all the menopausal periods is the postmenopausal period

No	Authors	Sample	Methodology	Measure	Findings	Comments
4	Syed Shahzad Hasan et al, (2016)	Sampel sebanyak 640 dengan diabetes type 2	cross-sectional	Delusions Symptoms States Inventory (DSSI) instrument was used to identify symptoms of depression and 5anxiety, The M6ENQOL is a vali dated instrument used to measure quality of life	Women with diabetes had higher depressive (11.8% versus 8.4%) and anxiety (8.4% versus 6.6%) symptoms compared to women without diabetes. Women without diabetes had significantly higher scores for the sexual domain compared to women with diabetes (4.20 versus 3.21, p = 0.001).	The odds that a postmenopausal woman with diabetes was depressed or anxious on the DSSI scale increased significantly when the MENQOL score on the physical, vasomotor, and psychosocial domains increased by one unit. Both diabetes and psychological problems have negative impact on MENQOL. Our findings support the view of screening postmenopausal women with diabetes for depressive and anxiety, to improve overall quality of life
5	Seyedeh Nooshaz Mirhaghjou et al (2016)	675 menopausal women aged between 40 and 60 years	cross-sectional survey	Quality of life was assessed by Menopause-Specific QOL (MENQOL) Questionnaire	vasomotor: 2.14 ± 1.49 ; psycho-social: 1.56 ± 0.85 ; physical: 1.91 ± 0.52 and sexual: 1.37 ± 1.05 . Comparing the median of the studied domains, physical domain had the worst score in menopausal women. Pain in joint and muscle, one item of physical domain, had the highest score	menopause-related symptoms had negative impact on QOL
6	Ning Sun et al (2017)	327 community women age 30–65 years old.	Prospective longitudinal study design	instrument including the Chinese version of the Menopause-Specific Quality of Life Questionnaire was used to obtain data.	Significant differences were observed in vasomotor, physical and sexual scores at baseline and follow-up ($P < 0.05$). Significant differences in vasomotor scores were observed between baseline and follow-up for women in the premenopausal and Late	Menopause might have a negative impact on QOL independent of age in community-based women in China. There seemed to be a potential model

No	Authors	Sample	Methodology	Measure	Findings	Comments
					MT stages ($P < 0.05$). There were significant differences in psychosocial and physical scores between baseline and follow-up in the Late MT stage ($P < 0.05$).	of the relationship of menopause status to change in QOL, but this needs supporting evidence from longer longitudinal studies
7	Ozlem et al (2007)	A total of 40 postmenopausal women, at 45 to 70 years	cross-sectional	The depression level was evaluated by Hamilton Depression Rating Scale (HAM-D), health related quality of life was evaluated by Assessment of Health Related Quality of Life in Osteoporosis (ECOS-16) and the severity of the pain was measured by visual analogue scale (VAS).	observed that HAM-D scores and the VAS scores were higher in patients with osteoporosis ($p < 0.001$, for both). ECOS-16 scores were greater in women with postmenopausal osteoporosis than in healthy controls ($p < 0.001$), further ECOS-16 scores was negatively correlated with bone mineral density in femoral neck and lumbar region ($r = -0.405$, $p < 0.001$, $r = 0.404$, $p < 0.001$).	It is possible to conclude that quality of life and psychological status may be impaired in osteoporosis. Postmenopausal women may need not only drug treatment but also psychological support in the management of osteoporosis.
8	Mark A. Et al, (2002)	A total of 2763 post menopausal women with documented coronary artery disease mean age 67 years old	A randomized placebo controlled double blind trial control	Physical activity measured by the duke activity status index, energy/fatigue and mental health measured by RAND scale, depressive symptoms measured on the burnam screening scale	Scores declined significantly for physical function ($-3.8; < .001$), mental health ($-0.6; P = .05$). depressive symptoms were not significantly changed ($P = .20$)	Hormone therapy has mixed effects on quality of life among older woman

menopause has a negative impact on the quality of life.

Research conducted by Mamun Ibn Bashir et al, (2018) states psychological problems suffered by many women post-menopause early compared with menopausal women in general. The study also found no significant association between symptoms and symptoms of depression. It is also unclear whether the symptoms of depression precede or follow vasomotor symptoms. The perceived severity of vasomotor symptoms is influenced by attitudes toward menopause, and dispositional optimism (Elavsky and McAuley, 2009) or changes in family life (Hardy and Kuh, 2002), suggest that there are a number of important psychological variables in understanding the relationship between depression and quality of life.

Research conducted by Kawsar Ahmed et al, (2016) and B. Ceylan and N. Özerdoğan (2014) show that psychological problems are suffered by those who experience early menopause followed by a decline in the quality of life of these women. In addition, comorbid diseases such as diabetes mellitus, heart attack and osteoporosis are also the trigger factors for depression that negatively affect quality of life (Ozlem et al., 2007; Syed Shahzad Hasan et al., 2016; Seyedeh Nooshaz Mirhaghjou et al, 2016), the condition which can exacerbate a person's depression level. It is likely that the conceptual model of depression on vasomotor symptoms needs to incorporate a variety of obvious psychological variables, not only covering contextual factors such as stress events, but also cognitive factors as well as social support from the surrounding environment.

4 DISCUSSION

This study aims to examine the relationship between depression and menopausal transition, and critically examine its relation to quality of life. The small number of studies identified confirms that the relative neglect of anxiety occurring against depressive disorders in other age groups (M. Terauchi et al, 2017), also applies to women in middle age. The hypothesis shows that depression rates increase in women with early menopause and a negative quality of life associated with several factors, namely income, education and body mass index (B. Ceylan and N. Özerdoğan, 2014). Predisposing factors that affect the incidence of depression on quality of life are the presence of

comorbid diseases such as diabetes mellitus, heart attack and osteoporosis (Ozlem et al, 2007).

Another literature states that the depressed conditions experienced by menopausal women is the effect of vasomotor symptoms that arise when a person is in menopause transition. This hypothesis goes against the other published literature. Studies of depression in menopause are largely influenced by vasomotor symptoms and urogenital complaints. Hormonal and lifestyle changes are indirect factors that lead to a decline in the quality of life. Symptoms of depression appear can not be attributed directly to menopause, but there are other known risk factors such as anxiety and anxiety, including stressful life events.

Improving the quality of one's life is influenced about the positive way of looking at the changes that occur in the body. In addition, the influence of education, income, support and health status shows a significant association of depression at the time a person enters the menopausal transition (Danny Salazar-Pousada et al, 2017). The condition of severe depression also shows a direct effect as a cause of poor quality of life.

5 CONCLUSIONS

The published research on the relationship between depression and menopausal transition tends to be adequate for the size of depression, and to conclude high levels of "depression" because menopause is affected by several factors: vasomotor symptoms and health status that impact on quality of life. Improving the quality of one's life is influenced how a positive view of the changes that occur in the body. In addition, the influence of educational factors, income, support and health status on acceptance of menopausal status.

There are studies that provide solid data on the prevalence of depression that meets the diagnostic criteria, as well as their relation to quality of life. The use of different measures of depression in menopausal women need to be standardized in order to avoid significant differences when the research is done in different areas. It takes a good management strategy to reduce the severity of depression so as to improve the quality of life of menopausal women.

REFERENCES

- Altindag, O. et al., 2007. Quality of Life and Depression in Postmenopausal Women with Osteoporosis. *Turk J Phys Med Rehab*, (53), pp.61–64.
- Bashar, M.I. et al., 2017. Depression and Quality of Life among Postmenopausal Women in Bangladesh: A Cross-sectional Study. *Journal of Menopausal Medicine*, 23(3), p.172. Available at: <https://synapse.koreamed.org/DOIX.php?id=10.6118/jmm.2017.23.3.172>.
- Ceylan, B. & Özerdoğan, N., 2014. Menopausal symptoms and quality of life in Turkish women in the climacteric period. *Climacteric*, 17(6), pp.705–712.
- Erbil, N., 2017. Attitudes towards menopause and depression, body image of women during menopause. *Attitudes towards menopause and depression, body image of women during menopause*.
- Hasan, S.S. et al., 2016. Psychological health and menopause-specific quality of life of Malaysian women with type 2 diabetes. *Asian Journal of Psychiatry*, 23, pp.56–63. Available at: <http://dx.doi.org/10.1016/j.ajp.2016.07.005>.
- Hickey, M. et al., 2016. Depressive symptoms across the menopause transition: findings from a large population-based cohort study. *Menopause (New York, N.Y.)*, 23(12), pp.1287–1293. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/27552471>.
- Hlatky, M.A. et al., 2002. Quality-of-Life and Depressive Symptoms in Postmenopausal Women After Receiving Hormone Therapy. *Jama*, 287(5), p.591. Available at: <http://jama.jamanetwork.com/article.aspx?doi=10.1001/jama.287.5.591>.
- Ho, S.C. et al., 2017. Association of life events and depressive symptoms among early postmenopausal Chinese women in Hong Kong. *Menopause*, 24(2), pp.180–186.
- Kai, Y. et al., 2016. Effects of stretching on menopausal and depressive symptoms in middle-aged women: A randomized controlled trial. *Menopause*, 23(8), pp.827–832.
- Mirhaghjou, S.N. et al., 2016. Quality of life and its determinants in postmenopausal women: A population-based study. *Applied Nursing Research*, 30, pp.252–256. Available at: <http://dx.doi.org/10.1016/j.apnr.2015.10.004>.
- Muharam, R. et al., 2017. Depression and its link to other symptoms in menopausal transition. *Middle East Fertility Society Journal*, pp.0–3. Available at: <http://dx.doi.org/10.1016/j.mefs.2017.08.003>.
- Roberts, H. & Hickey, M., 2016. Managing the menopause: An update. *Maturitas*, 86, pp.53–58. Available at: <http://dx.doi.org/10.1016/j.maturitas.2016.01.007>.
- Salazar-Pousada, D. et al., 2017. Evaluation of depressive symptoms in mid-aged women: Report of a multicenter South American study. *Menopause*, 24(11), pp.1282–1288.
- Sun, N. et al., 2017. Impact of Menopause on Quality of Life in Community-based Women in China: 1 Year Follow-up. *Archives of Psychiatric Nursing*, (January), pp.0–1. Available at: <http://linkinghub.elsevier.com/retrieve/pii/S0883941717300584>.
- Terauchi, M. et al., 2017. Feelings of unattractiveness in peri- and postmenopausal women are associated with depressed mood, poor memory and unsatisfactory sexual relationships. *Climacteric*, 20(3), pp.228–232. Available at: <http://dx.doi.org/10.1080/13697137.2017.1293647>.
- Zang, H. et al., 2016. The association of depression status with menopause symptoms among rural midlife women in China. *African Health Sciences*, 16(1), pp.97–104.